

KOSNOWSKY, Zdenek; STACHA, Karel

Internal chills for steel castings. Slovarenstvi 12 no.9:344-
348 S '64.

1. V. Kovicke zelezarny Klementa Gottwalda National Enterprise,
Ostrava.

SYKORA, Karel, inz.; TUSL, Jan, inz.

Gas tightness of digestion tank constructions. Vod hosp 15 no.1:
15-16 '65.

1. Regional Water Resources Development and Investment Center,
Plzen.

SYKORA, L; URBANEK, L.

Geologic conditions in the south and southeastern part of the Most area.

P. 116, (Vestnik) Vol. 32, no. 2, 1957, Praha, Czechoslovakia

SO: Monthly Index of East European Acessions (EEAI) Vol. 6, No. 11 November 1957

L 31065-66 EWP(c)/EWP(k)/EWP(h)/T/EWP(l)/EWP(f)/EWP(v)
ACC NR: AP6022547 SOURCE CODE: CZ/0031/66/014/002/0114/0120
AUTHOR: Borik, Vaclav--Borzhik, V. (Engineer); Sykora, Lubomir (Engineer) 28
ORG: VZKG, n.p., Ostrava B
TITLE: Progressive technique in the production of heavy workpieces 14
SOURCE: Strojirenska vyroba, v. 14, no. 2, 1966, 114-120
TOPIC TAGS: production engineering, fabricated structural metal
ABSTRACT: The article describes in its main features a new progressive technique
for the single-item production of components of a slabbing mill at the VZKG, where
the technique has also proved itself in other heavy production. Orig. art. has:
9 figures. [JPRS]
SUB CODE: 13 / SUBM DATE: none/ ORIG REF: 004/

Card 1/1

UDC: 621.944.3-412
621.9:621.81:183.2

SYKORA, Ladislav

Vojtech Ambroz; obituary. Cas min geol 7 no.3:368-370 '62.

COUNTRY : Czechoslovakia
CATEGORY :

H-5

ARS. JOUR. : RZKhim., No. 5 1960, No.

18309

AUTHOR : Zvejska, M., Sykora, M., and Ryska, A.
INST. : Not given

TITLE : Study on the Treatment of Sewage in a Socialist City

CRIG. PUB. : Vodni Hospod, No 7, 293-297 (1959)

ABSTRACT : The authors have studied the operation of the biochemical sewage treatment plant (trickling filters, methane tank) in Ostrava-Stalingrad which processes only municipal sewage. Data are given on the fluctuation in the discharge, chemical composition (dry residue, BOD, total oxygen demand, pH, alkalinity, total N, Cl^-), and bacterial pollution of the sewage in the course of a typical day. The operation of the treatment plant is described.
M. Lapshin

CARD: 1/1

223

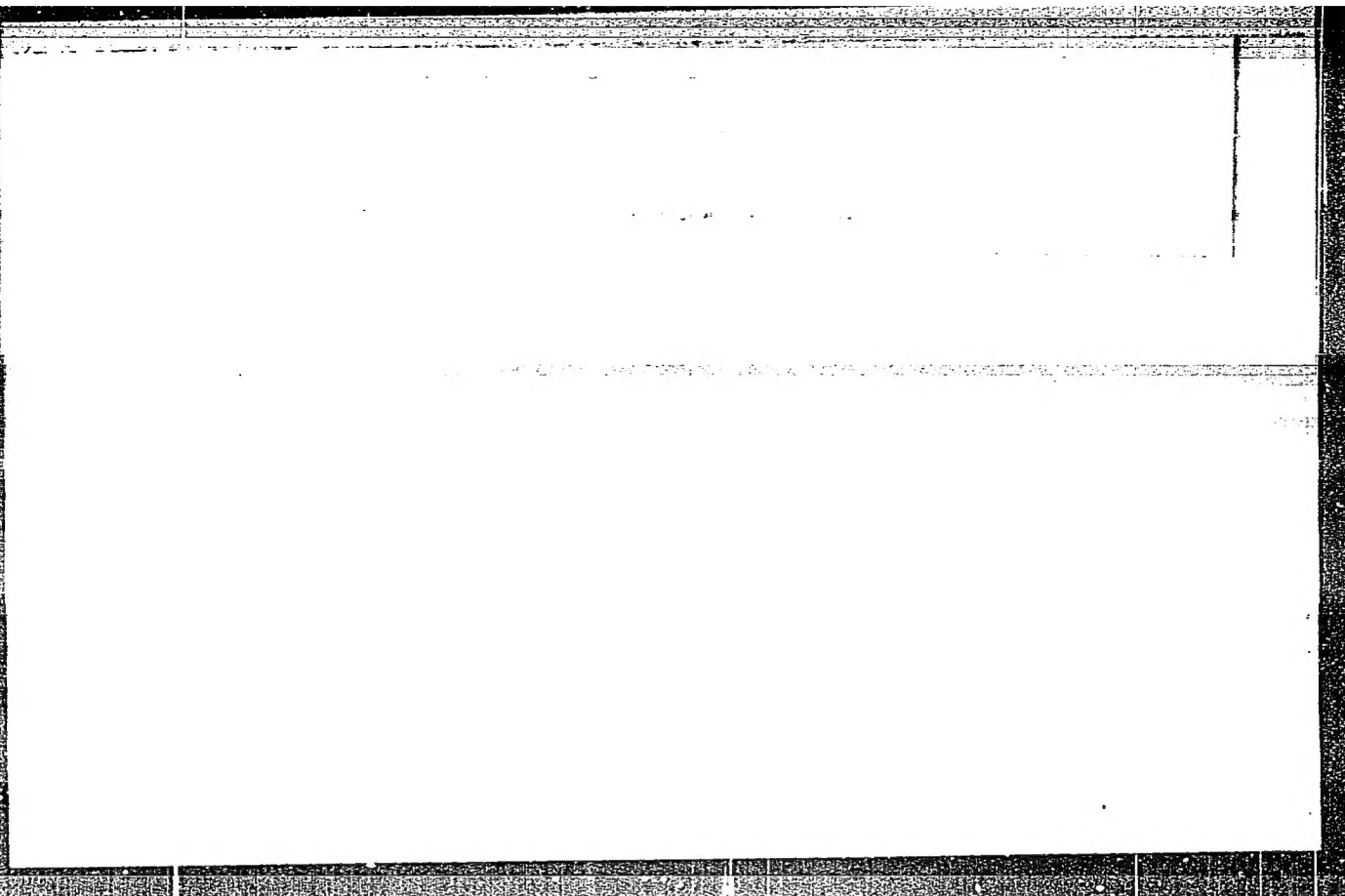
SYKORA, Miroslav, inz.

Development of tractor gearboxes. Zemedel tech 10 no.1:
57-64 Ja '64.

1. Ceskoslovensko-polske stredisko pro vyzkum a vyvoj traktoru
pri Zavodech na byrobu kulickovych lozisek, Brno.

"APPROVED FOR RELEASE: 07/13/2001

CIA-RDP86-00513R001654230001-9



APPROVED FOR RELEASE: 07/13/2001

CIA-RDP86-00513R001654230001-9"

SYKORA, M.

"Decarbonization of steel surfaces. " p. 34, (HUTNIK, Vol. 3, no. 2, Feb 1953, Praha, Czechoslovakia).

SO: Monthly List of East European Accessions, LC, Vol. 2, No. 11, Nov. 1953, Uncl.

SYKORA, M.

"Introducing Soviet Standards in Czechoslovak Metallurgy" p. 74, (HUTNIK, Vol. 3, no. 4, Apr. 1953, Praha, Czechoslovakia).

SO: Monthly List of East European Accessions, LC, Vol. 2, No. 11, Nov. 1953, Uncl.

SYKORA, M.

"Good Example of Workers in the Trinec Ironworks" p. 76, (HUTNIK, Vol. 3, no. 4, Apr. 1953, Praha, Czechoslovakia).

SO: Monthly List of East European Accessions, LC, Vol. 2, No. 11, Nov. 1953, Uncl.

SYKORA, M.

"Oil Pipes. p.112." HULNIK, Vol. 3, No.5, May 1957. CZECHOSLOVAKIA.

SO: Monthly List of East European Accessions, L.C.Vol. 2, No.11, Nov. 1953
Uncl.

SYKORA, M.

"Thin sheet metals; forms for heating rolls." p. 125. (Hutník Vol. 3, no. 6, June 1953. Praha.)

SO: Monthly List of East European Accessions, Vol. 3, No. 2, Library of Congress, Feb. 1954,
Uncl.

Journal of the Iron and Steel Institute
Vol. 176 Part 3
Mar. 1954
Fuel-Preparation, Properties, and Uses

① Met
✓ The Economics of Fuel in Iron Making. M. Sykora.
(Hutník (Prague), 1953, 8, (7-8), 185-187). [In Czech]. The
utilization and calorific value of solid and gaseous fuels in-
volved in iron-making are discussed.—P. F.

"APPROVED FOR RELEASE: 07/13/2001

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APPROVED FOR RELEASE: 07/13/2001

CIA-RDP86-00513R001654230001-9"

SYKORA, M.

"Soviet Standards for Metallurgical Production," Metallurgie und Giesserei
Technik, No 1, Berlin, Jan 1954

Translation W-31216, 29 Mar 55

SYKORA, M.

SYKORA, M. Unification of standards for metallurgic products. p. 26.

Vol. 3, no. 2, Feb. 1954

NORVALIS/CE

TECHNOLOGY

Praha, Czechoslovakia

So: East European Accessions, Vol. 5, no. 5, May 1956

SYKORA, M.

Unification of standards and division of rolling programs for metallurgic products. p. 50.

NORMALISACE. Praha. Vol. 3, no. 3, Mar. 1954

SOURCE: East European Accessions List (EEAL), LC, Vol. 5, no. 3, March 1956

Sykora, M.

Steel molds. p. 257. NORMALISACE. (Urad pro normalisaci) Praha.
Vol. 3, no. 12, Dec. 1954.

Source: EEAL LC Vol. 5, No. 10 Oct. 1956

SYKORA, M. - Normalisace - Vol. 4, no. 1, Jan. 1955.

Standardization of hot-rolled metallurgic steel products. p. 8.
Permanent quality and exemptions from Czechoslovak state standards. p. 10.

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, No. 9, Sept. 1955
Uncl.

SYKORA, M.

SYKORA, M. Steel forgings. p. 81.

Vol. 4, no. 4, April 1955
NORMALISACE
TECHNOLOGY
Praha, Czechoslovakia

So: East European Accessions, Vol. 5, no. 5, May 1956

SYKCPA, M.

Standardization of the quality of metallurgic products. p. 203.

Vol. 4, no. 9, Sept. 1955

NORMALISACE

Praha, Czechoslovakia

So: Eastern European Accession Vol. 5 No. 4 April 1956

SIKORA, M.

Tempering cold-rolled strip steel. p.45.
(HUTNIK vol. 5, no. 2, Feb. 1955, Praha)

SO: Monthly List of East European Accessions, (EEAL). LC, Vol. 4, No. 11,
Nov. 1955, Uncl.

CZECHOSLOVAKIA / Chemical Technology, Chemical Products and
their Applications, Treatment of Solid Fuels

H-22

Abs Jour : Ref Zhur - Khimiya, No 11, 1958, 37451
Author : Shongut S., Sykora, M.
Inst : Not given
Title : Ethylene Preparation by Pyrolysis of Tars Resulting
from Semi-Coking
Orig Pub : Chem. Prumysl, 1957, 7, #11, 581-587.
Abstract : Laboratory experiments on pyrolysis of 15 varieties of
tars and for the comparison of heavy oil residues were
conducted. Their object was a search for possibilities of
production of unsaturated, gaseous hydrocarbons by pyrolysis
of tars and analogous products, obtained by a high
pressure hydrolysis of semi-coking tars from North

Card 1/2

5

SYKORA, M.; HANULIK, J., inz.

Junction rail bonds on the line section at the foot of a hill.
Zel dop tech 12 no.11:288-289 '64.

SYKORA, O.; BENDA, F.

Sudden blindness in an infant. Cesk. pediat. 13 no.9:819-822 5 Oct 58.

1. Detske oddeleni OUNZ v Ceske Lipe, prednosta primar dr. K. Vlasak
Ocni oddeleni OUNZ v Ceske Lipe, prednosta dr. Frant. Benda O. S.
Dobrichovice, Anglicka 319.

(BLINDNESS, in inf. & child

sudden blindness caused by bilateral inflamm. of optic
tract, case report (Cz))

(OPTIC TRACTS, dis.

bilateral inflamm. causing sudden blindness in inf., case
report (Cz))

L 20237-66 EEC(k)-2

ACC NR: AP6010347

SOURCE CODE: CZ/0039/65/026/011/0650/0657

AUTHOR: Stach, Jan; Sykora, Rudolf

ORG: TESLA Roznov, n.p., Roznov

TITLE: Some methods of field measurements of transistors *gm*

SOURCE: Slaboproudy obzor, v. 26, no. 11, 1965, 650-657

TOPIC TAGS: transistor, electric impedance, electric capacitance

ABSTRACT: The article describes simple methods of measuring four radio-frequency parameters with which the r-f properties of transistors may be characterized for general applications: the real part of the short-circuit impedance $Re\ h_{11e}$, the absolute value of the short-circuit current gain factor h_{21e} , the absolute value of the inverse voltage ratio h_{12b} , and the output capacitance in the common base circuit c_{22b} . Orig. art. has: 13 figures and 28 formulas. [JPRS]

SUB CODE: 09 / SUBM DATE: 26Apr65 / ORIG REF: 003 / OTH REF: 003

Card 1/1 *17/4/5*

UDC: 621.314.7.001.4

CZECHOSLOVAKIA

SYKORA, S

Research Institute for Rubber and Plastics Technology,
Gottwaldov

Prague, Collection of Czechoslovak Chemical Communications,
No 7, July 1966, pp 2664-2678

"Mixing of highly viscous liquids."

GABERMANN, V.; SYKORA, R.

Adaptation of a high pressure mercury ultraviolet lamp for a study
of chromatograms. Biokhimiia 27 no.3:426-429 My-Je '62.
(MIRA 15:8)

1. Chair of Medical Chemistry, Medical Institute of the Carl
University, Plzen, Czechoslovakia.
(CHROMATOGRAPHIC ANALYSIS) (ULTRAVIOLET RAYS)

SYKORA, R.

Modification of the Schering bridge for measurement on higher frequencies. Sdel tech 12 no.7:261 J1 '64

SYKORA, Rudolf

New method of protection of a stabilized transistor power supply.
Sdel tech 12 no.8:308 Ag '64

A simple constant current source. Ibid.:310-311

1-1813-65

MISSION NR: 1-1813-65

7 10014 164 /100/008/0308/0308

AUTHOR: Sykora, Rudolf

B

TITLE: New method of securing a stabilized transistorized power supply

SOURCE: Sdelovaci technika, no. 8, 1964, 308

TOPIC TAGS: transistor, electronic feedback, electric power production

ABSTRACT: Described is a transistorized power supply which uses a feedback loop

to stabilize the output voltage. The feedback loop is formed by a transistor and a

resistor network. The output voltage is stabilized by the feedback loop.

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

SUB CODE: IC, EE

NO REF SOV: 0X0

OTHER: 002

JPRS

Card 1/1

CZECHOSLOVAKIA

NAVRATIL, B; SYKORA, S; KARASEK, O

Research Institute of Rubber and Plastics Technology,
Cottwaldov - (for all)

Prague, Collection of Czechoslovak Chemical Communi-
cations, No 2, February 1967, pp 517-525

"Laminar-flow heat transfer in the annular space of a
mixed reactor."

SYKORA S.

500

Continuous measurement of the density of liquids. I.
J. Vitovec and S. Sykora (Výzkumný ústav synt. kaučuku,
Přelčice, Czech.). Chem. Listy 50, 140-3 (1956).
An app. based on the changes of hydrostatic pressure is
described. B. Ridda

Smol ①
Sykora

SYKORA, S.

Heating of multiple-ply and shaped rubber sheets during the
vulcanization process. Kauch.i rez. 22 no.1:24-26 Ja '63.
(MIRA 16:6)

1. Nauchno-issledovatel'skiy institut sinteticheskogo kauchuka,
g. Gotval'dov, Chekhoslovatskaya Sotsialisticheskaya Respublika.
(Vulcanization) (Heat--Transmission)

SYKORA, Stanislav; KOLARIK, Zdenek

Sorption of radioactive isotopes on precipitator. Pt. 12.
Jaderna energie 10 no. 2:52 F '64.

1. Ustav jaderného výzkumu, Československá akademie věd,
Rez.

SYKORA, T.

"Unimog"; a German truck. p.23.
(Silnice, Vol. 6, No. 1, Jan. 1957, Praha, Czechoslovakia)

SO: Monthly List of East European Accessions (EEAL) LC. Vol. 6, No. 9, Sept. 1957. Uncl.

SYKORA, T.

A hydraulic conveyer for a stone crusher; an improved design by Sommer. p.23.
(Silnice, Vol. 6, No. 2, Feb. 1957, Praha, Czechoslovakia)

SO: Monthly List of East European Accessions (EEAL) LC. Vol. 6, No. 9, Sept. 1957. Uncl.

CA SIKORA, Vaclav

Inorganic Chemistry

The question of existence of ternary uranyl beryllium sodium acetate. Vaclav Hovorka and Vaclav Sýkora (Tech. Univ., Prague, Czech.). *Chem. Listy* 86, 3-5 (1982).—Be(OAc)₂ accelerates pptn. of NaUO₂(OAc)₂ from the solns. of UO₂(OAc)₂ and NaCl. In contrast to Mg, Cd, Zn, Mn, Co, and Ni, Be does not form a ternary acetate, as was proved by means of chem. and x-ray analysis.

M. Hudlický

~~SECRET~~) / (C A T , Vaclav
CZECHOSLOVAKIA/General Problems - Methodology. Scientific A-1
Institutions and Conferences. Instruction. Questions
Concerning Bibliography and Scientific Documentation.

Abs Jour : Referat Zhur - Khimiya, No 8, 1957, 25683 K.

Author : Vaclav Sycora, Vladimir Zatkan.

Inst :

Title : Chemist's Reference Tables.

Orig Pub : Praha, SNTL, 1956, 202, (2) s., 11., 13.50 Kcs.

Abstract : No abstract.

Card 1/1

- 40 -

SYKORA, V.; DUBSKY, F.

Selective ion exchangers on the basis of resorcyaldehyde. Pt.

2. Coll Cz Chem 28 no.8:2149-2157 Ag '63.

1. Institut fur analytische Chemie, Technische Hochschule fur Chemie, Prag.

CZECHOSLOVAKIA/Cultivated Plants - Grains.

14.

Abs Jour : Ref Zhur - Biol., No 10, 1958, 44039

Author : Sykora, Jan., Sykora, Vladimir

Inst : -

Title : Selection of Wheat by the Method of Free Pollination.

Orig Pub : Za vysokou urodu, 1957, 5, No 3, 183-184

Abstract : No abstract.

Card 1/1

- 24 -

SYKORA, Vaclav, doc., inz.dr.; MATOUS, Jan, inz.; DUBSKY, F.
SOUKUP, Jiri, inz., CSc.

Use of synthetic ion exchangers as plant nutrient sorbents. Part 2.
Rost výroba 9 no.11:1235-1246 N '63.

1. Vysoka skola chemicke-technologicka, katedra analyticke
chemie, Praha; Vyzkumny ustav okrasneho zahradnictvi,
Pruhonice.

MATOUS, Jan, inz.; SOUKUP, Jiri, inz.; SYKORA, Vaclav, doc. dr.;
DUBSKY, Ferdinand, inz.

Uptake of plant nutrients sorbed on ion exchangers under
the conditions of separated nutrition. Rost výroba 11
no.1:93-100 Ja '65.

1. Research Institute of Ornamental Gardening, Pruhonic
(for Matous and Soukup). 2. Chair of Analytical Chemistry
of the Higher School of Chemical Technology, Prague 6,
Technicka 5 (for Syker and Dubsky). Submitted June 1, 1964.

BC

4-

Isoita- β -amine, a new reagent for certain metals. (V. MOVCHAN and V. SYRINA (Odi, Czech. Chem. Commun., 1959, 10, 397-399). These compounds of the amine and metal, formed on adding the former to solutions of Ag, Hg^{II}, Fe^{II}, Fe, Cu^{II}, Fe^{III}, Co, Ni, and UO₂, salts in presence of excess of NaOAc, have been examined and are described. The salts form a sol. stable complex compound. C. R. H.

C. R. H.

S I M I L A METALLURGICAL LITERATURE CLASSIFICATION

BC

a-1

Determination of uranium by isatin- β -oxime.
V. Hovorka and V. Štorka (Coll. Czech. Chem.
Comm., 1938, 10, 182-189).—Addition of isatin- β -
oxime to a hot solution of a uranyl salt, followed by
addition of excess of NaOAc, gives a quant. pptn. of
 $UO_2(C_8H_5O_2N_2)$, finally converted by ignition into
 U_2O_5 . The method tends to give slightly high results,
with an error (for wts. of U_2O_5 from 0.3 to 0.01 g.) of
<0.5%.
M. R.

AS H-3 LA METALLURGICAL LITERATURE CLASSIFICATION

1ST AND 2ND ORDERS

3RD AND 4TH ORDERS

PROCESSES AND PROPERTIES INDEX

COMMON ELEMENTS

COMMON VARIABLE INDEX

1ST AND 2ND ORDERS

3RD AND 4TH ORDERS

PROCESSES AND PROPERTIES INDEX

COMMON ELEMENTS

COMMON VARIABLE INDEX

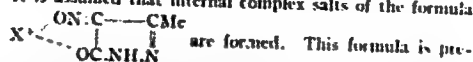
1ST AND 2ND ORDERS		PROCESSES AND PROPERTIES INDEX	
<p>The preparation of the d-oxime of isatin. V. Hovorka and V. Stama. <i>Chem. Listy</i> 22, 211 (1928); J. C. A. 32, 4450. Isatin (15 g.) and 8 g. of $\text{NH}_4\text{OH} \cdot \text{HCl}$ (1 mol.) were poured into a vessel contg. 200 cc. H_2O, brought to a boil and heated mildly for 15 min. or until all of the red isatin formed the yellow oxime. The soln. was cooled and the ppt. filtered, dried and recrystd. from 50% EtOH. Any interruption in the crystn. led to the formation of a pale yellow powder; a continuous crystn. yielded golden yellow needles m. 214° and decmpg. 217°. Although the yield ranged from 80 to 85% further fractions from the evapd. mother liquor increased this yield. The reaction was hastened by the presence of 1 mol. of HCO_2Na, AcONa or Na_2HPO_4, or 0.5 mol. of Na_2CO_3 or $\text{Na}_2\text{B}_4\text{O}_7 \cdot 10\text{H}_2\text{O}$, but heat was necessary to complete the reaction. The reaction was faster in an alk. than in an acid medium. Na_2HPO_4 produced the fastest reaction. Na_2CO_3 the most violent one and $\text{Na}_2\text{B}_4\text{O}_7$ produced some free acid which reduced the yield to 70%. With the exception of Na_2HPO_4 all of the salts produced an amorphous product. However, the best results were obtained without the addn. of salts and required a total time of 1-1.5 hrs. P. M.</p>			
<p>ASS-5LA DETALLURGICAL LITERATURE CLASSIFICATION</p>			
<p>RECORDS</p>			

1ST AND 2ND ORDERS																										3RD AND 4TH ORDERS																									
PROCESSES AND PROPERTIES INDEX																																																			
<p><i>BC</i> <i>A-1</i></p> <p>Oximino-N-phenyl-3-methylpyrazolone as a reagent in analytical chemistry. V. HOVORKA and V. SZKOMA (Coll. Czech. Chem. Commun., 1939, 11, 70—76).—Characteristic reactions of an aq. EtOH solution of the reagent with solutions containing Ag⁺, Hg₂²⁺, Hg²⁺, Pb²⁺, Cu²⁺, Bi³⁺, Cd²⁺, Fe³⁺, Fe²⁺, Mn²⁺, Ni²⁺, UO₂²⁺, or Zn²⁺ are described. Salts of the composition M(C₁₀H₈N₂O₃)₂, where M = Cu, Zn, Mn, or UO₂, have been isolated. E. S. H.</p>																																																			
<p>ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION</p>																																																			

SYKORA, V.

CA

Reactions of Isonitroso-3-methyl-5-pyrazolone with metallic salts. V. Hovorka and V. Sykora. *Collection Czech. Chem. Commun.* 11, 124 (1946) (in French); cf. *C.A.* 33, 3287. The reaction of isonitroso-3-methyl-5-pyrazolone (I) with metallic salts has been studied. It is assumed that internal complex salts of the formula



ferred to other possible formulations. A no. of colored insol. salts was obtained. I and some of its substitution products will be investigated as regards their applicability in the quant. detn. of metals. A 1% soln. of I in 50% alc. and 5% solns. of the different metallic salts were used, if necessary in the presence of a 10% soln. of NaOAc. AgClO₄ and AgOAc give red ppt.s.; AgNO₃ gives a ppt. only in a buffered soln. This pptn. is quant. The ppt. is sol. in NH₃ and glacial AcOH. Hg(NO₃)₂ gives a quant. orange ppt. in buffered soln. Hg(NO₃)₂ gives an orange-red ppt. A soln. of cuprous sulfite gives a brown ppt. Cu(NO₃)₂ and CuSO₄ in buffered soln. and Cu(OAc)₂ give a green cryst. ppt. of Cu(C₄H₅N₃O₃). The pptn. is quant. The ppt. is sol. in hot water. FeSO₄ gives a dark green ppt. The color of ferric salts changes to brown-red, that of salts of Mn changes from rose to brown-green. NiSO₄ and Ni(NO₃)₂ give light green cryst. ppt.s. when boiled in buffered solns. The salts of Co have similarly, giving a brown ppt. Dana Stern

434 564 METALLURGICAL LITERATURE CLASSIFICATION

CR

A contribution to the reactions of piperonal oxime with metallic salts. V. Hovoska and V. Sklra. *Chem. Listy* 33, 276-7 (1939); cf. *C. A.* 33, 6307. Piperonal oxime in 50% EtOH and in the presence of the buffers, AcONa or hexamethylenetetramine, did not react with Pb, Cd, Fe, Ni, Co, Mg or Ca added in the form of nitrates, sulfates, chlorides or perchlorates. It reacted with both

Hg⁺ and Hg⁺⁺ but did not form ppt. with them even in carefully buffered solns. With U salts it changed color from a yellow to a brown-orange, indicating the formation of complex salts, but it did not ppt. the U salts even with the aid of buffers. In the presence of AcONa or hexamethylenetetramine it pptd. Cu as a green mass (I) quantitatively. I was very sensitive to the acidity of the medium, could not be weighed directly, had to be ignited to CuO, and was in dil. CH₃CO and AcOH. Elementary analyses indicate Cu(OH)·CuH₂N₂O₂ or Cu(OH)·CuC₂H₃N₂O₂. In detns. made on 0.1-0.5 g. samples the error was 0.33-0.40%, always below the theoretical values. Because I dissolves in dil. AcOH, hexamethylenetetramine is preferable as a reagent for reducing the acidity of the soln. Since heat evaporates the liberated CH₃O, the pptn. of I became more complete in hot solns. Because the piperonal oxime does not ppt. Cd, it may become useful for sepg. Cd from Cu in quant. analysis. F. Mareš

Formate complexes. H. Runtzinger, H. Plesing and W. Rudolph. *Z. anorg. allgem. Chem.* 242, 197-200 (1939). Calcn. of the ion wts. of formate ions by detn. of dialysis coeffs. establishes the following formate complexes: [Co(HCOO)₄]³⁻, [Ni(HCOO)₄]²⁻, [Zn(HCOO)₄]²⁻, [Cu(HCOO)₃]²⁻, [Cd(HCOO)₃]²⁻, [Cr(OH)₃]³⁻, [Fe(HCOO)₄]³⁻.

H. Stoertz

SYKORA, V.

SORM, F.; HOLUB, M.; SYKORA, V.; MLEZIVA, J.; STENIBL, M.; PLIVA, J.;
SCHNEIDER, B.; HEROUT, V.

On terpenes. Part 46. Sesquiterpenic hydrocarbons from oil of sweet
flag [in English with summary in Russian]. Sbor. Chekh. khim. rab. 18
no. 4:512-526 Ag '53. (MLRA 7:6)

1. Department of Natural Products, Institute of Organic Chemistry,
Czechoslovak Academy of Science, Prague. (Sesquiterpenes)
(Calamene)

Sakora, Vlastimil

Terpenes. I. Contribution to the constitution of elemol. Vlastimil Sakora, Vlastimil Herout, Josef Pilva, and František Šorm (Czech. Akad. Věd, Prague, Czech.). *Chem. Listy* 47, 889-898 (1953); *Collection Czechoslov. Chem. Commun.* 19, 124-34 (1954) (in English); cf. C.A. 47, 8, 34h. Comparison of the infrared spectra of elemol and of synthetic 1,1-dimethyl-2-sec-butyl-4-isopropylcyclohexane (I) contradicts the Ruzicka-van Veen formula (C.A. 24, 607) of elemol (II). Dehydrogenation of tetrahydroelemol (III) to 1-methyl-2,4-diisopropylbenzene (IV) proves that I has the skeleton of 1-methyl-1-ethyl-2,4-diisopropylcyclohexane (V). II isolated from the distn. residues of citronella oil by vacuum distn. was chromatographed and purified through its phenylurethan, m. 111-12°, to give pure II, m. 52.5-53.5°. Dehydration of 40 g. tetrahydro-II (obtained by hydrogenation of II over PtO₂) by heating with 220 g. 85% HCO₂H 1 hr. on the steam bath gave, after chromatography and distn., 31 g. III, b_p 128-30°. Heating 2.1 g. III and 0.95 g. S 7 hrs. at 180°-240° gave 0.95 g. IV, b_p 100-5°, d₄ 0.8563, n_D²⁰ 1.4945. Quant. ozonization of II indicated 1.59 double bonds. I was synthesized as follows: refluxing

21 g. 2,2-dimethylcyclohexanone in 210 ml. CCl₄ with 27.2 g. N-bromosuccinimide under ultraviolet illumination 40 min. gave 37 g. 2,2-dimethyl-6-bromocyclohexanone, m. 55.5-57° (from petr. ether); the dehydrobromination of which (35 g.) with 250 ml. collidine gave 11.9 g. 2,2-dimethyl-6-cyclohexenone (VI), b. 175-82° (decompu.). Refluxing 1 hr. 11.9 g. VI with a soln. obtained from 10.7 g. Mg and 31.4 g. iso-PrCl in Et₂O gave, by way of the semicarbazone, m. 137-8°, 2.23 g. 2,2-dimethyl-6-isopropylcyclohexanone (VII), b_p 105-5.5°, d₄ 0.8982, n_D²⁰ 1.4740. VII (1.03 g.) in petr. ether refluxed 1 hr. with a soln. of sec-BuLi made from 1.5 g. Li and 12 ml. sec-BuCl, gave, after chromatography, 0.8 g. 1-sec-butyl-2,2-dimethyl-5-isopropylcyclohexanol, b_p 94-9°, the dehydration of which with HCO₂H yielded 1,1-dimethyl-2-sec-butyl-4-isopropylcyclohexene (VIII), b_p 105-8°. Hydrogenation of VIII in AcOH over PtO₂ gave I, d₄ 0.8412, n_D²⁰ 1.4601. Dehydrogenation of VIII with S (7 hrs. at 180°-240°) gave a compd. distg. at 27

mm. at bath-temp. 120°. 1-Methyl-2-sec-butyl-4-isopropylbenzene (IX) was synthesized as follows: carvone (n_D²⁰ 1.4900) (2.3 g.) and sec-BuLi from 2.4 g. Li and 14 g. sec-BuCl refluxed 1 hr. in petr. ether gave 2.5 g. crude 1-sec-butyl-2-methyl-5-isopropyl-2-cyclohexenol, b_p 94-133°, which was isomerized by boiling with HCO₂H to 0.25 g. 1-methyl-2-sec-butyl-4-isopropylbenzene (X), b_p 98-105°, d₄ 0.8614, n_D²⁰ 1.4904. The same compd. was obtained as follows: carvomenthone (3 g.) refluxed 75 min. with sec-BuLi (from 1.5 g. Li and 11 ml. sec-BuCl) in petr. ether yielded, after chromatography, 1-sec-butyl-2-methyl-5-isopropylcyclohexanol, b_p 87-91°. This heated with 80% HCO₂H gave 1-sec-butyl-2-methyl-5-isopropylcyclohexene (I), b_p 100-15°, which was dehydrogenated with S at 180°-250° to 0.93 g. X, b_p 103-6°, d₄ 0.8627, n_D²⁰ 1.4926. 1-Methyl-2,4-diisopropylbenzene (XI) was synthesized as follows: carvomenthone (d₄ 0.9124, n_D²⁰ 1.4564) (3.1 g.), refluxed 60 min. with iso-PrLi, prepd. from 2.8 g. Li and 19 ml. iso-PrCl, gave 3.5 g. 2-methyl-5-diisopropylcyclohexanol, b_p 70-81°. This (2 g.) was dehydrated with HCO₂H to 1.34 g. of the compd., b_p 86-90°, which yielded, by heating 6 hrs. with S at 180°-240°, 0.7 g. XI, b_p 104-8°, d₄ 0.8673, n_D²⁰ 1.4946. LI. The composition of the chamazulene. Preliminary communication. R. Šorm, J. Novák, and V. Herout. *Chem. Listy* 47, 1017-8 (1953); *Collection Czechoslov. Chem. Commun.* 18, 527-9 (1953) (in English).—On the basis of all known data on the elementary analyses of chamazulene and its derivs., on the basis of oxidation products, and of infrared spectra detns., the correct formula for chamazulene, 1,4-dimethyl-7-methylazulene, C₁₅H₁₄, is suggested. LI. The structure of laserpiline. František Šorm, Miroslav Hofek, and Vlastimil Herout. *Chem. Listy* 47, 1499-1503 (1953); *Collection Czechoslov. Chem. Commun.* 19, 135-40 (1954) (in German).—Laserpiline (I), the bitter principle of the root of *Laserpitium latifolium*, is a diester of angelic acid and isocrotonol (II) which seems to be a bicyclic tetrahydroxy ketone. Out of the 5 O atoms, 3 are bound to three neighboring C atoms, and 2 to two adjacent C atoms in some other part of the mol. I, isolated by petr. ether extrn., m. 117°, [α]_D²⁰ 111°, mol. wt. (Rast) 445, hydrogenated over PtO₂ in AcOH gave tetrahydrolaserpiline, m. 83-5° (from petr. ether). Sapon. of 2.3 g. I with 6.2 ml. 1.2 N Ba(OH)₂ in 10 ml. MeOH at room temp. gave,

di-Me norcaryophyllene, b_p 100-2°, 10 g. di-Me caryophyllene, b_p 150-1.5°, and 40 g. di-Me homocaryophyllene, b_p 130-2°, n_D²⁰ 1.4403, [α]_D²⁰ 32.00. Refluxing 27.4 g. II 4 hrs. with 10 ml. MeOH and a few drops of H₂SO₄ gave 12.8 g. (36.6%) Me II homocaryophyllene, b_p 186° (III). III (3.2 g.) was treated with SOCl₂ in 30 ml. CCl₄, the solvent evapd. in vacuo, the ester acid chloride dild. with CCl₄ and added to a benzene soln. of 1.25 equiv. Me₂CO to give, after heating 10 min., decampn. with 10% H₂SO₄, and ether extr., 2.00 g. (83%) Me 3-(2,3-dimethyl-4-acetylcyclobutyl)propionate (IV), b_p 131-8°; semicarbazone of the free keto acid, m. 106-6°. To 4 g. HgCl₂-activated Zn in 70 ml. CCl₄, were added 6.5 g. IV and 1 g. BrCH₂CO₂Me in 30 ml. CCl₄, the mixt. boiled 10 min., decampd. with 10% H₂SO₄ and extd. with Et₂O, the residue dehydrated by boiling 2 hrs. with 40 ml. Ac₂O to give, after chromatography, 2.43 g. Me β-[2-(2-carbomethoxyethyl)-3,3-dimethylcyclobutyl]crotonate, b_p 116-17°, which hydrogenated over PtO₂ in AcOH gave Me β-[2-(2-carbomethoxyethyl)-3,3-dimethylcyclobutyl]butyrate, 1.18 g., b_p 151-64°; β-[2-(2-carbomethoxyethyl)-3,3-dimethylcyclobutyl]butyric acid, b_p 190° (bath temp.) (obtained by alk. sapon. of the ester) (0.65 g.) distd. with 0.65 g. Fe dust and 0.15 g. Ba(OH)₂ gave 260 mg. (54%) 2,8,8-trimethylbicyclo[0.2.5]nonan-4-one (V), b_p 130° (bath temp.); semicarbazone, m. 176-7°. Another prepn. started with IV (3.53 g.) which was refluxed 5 hrs. with 1.85 g. NCCCH₂CO₂Et, 1.2 g. AcOH, 1.2 g. AcONa and 5 ml. CCl₄ to give 2.31 g. (45%) Et α-cyano-β-[2-(2-carbomethoxyethyl)-3,3-dimethylcyclobutyl]crotonate, b_p 161-6°, which hydrogenated over Pd on CaCO₃ yielded 2.15 g. Et α-cyano-β-[2-(2-carbomethoxyethyl)-3,3-dimethylcyclobutyl]butyrate, b_p 160-3° (VI). Heating 1.98 g. VI 15 hrs. with 10 ml. HCl and 5 ml. AcOH yielded 1.13 g. (98%) β-[2-(2-carboxyethyl)-3,3-dimethylcyclobutyl]butyric acid, b_p 180°, which yielded by cyclization 4% V, b_p 112-14°. The semicarbazone of V (369 g.), 450 ml. Na and 9 ml. EtOH were heated 20 hrs. at 200°, the mixt. dild. with H₂O and extd. with Et₂O, and the residue after evapn. of the Et₂O, was chromatographed to yield 105 mg. (41%) I, b_p 95-105°. I was also obtained by the K₂S₂O₈ reduction of the semicarbazone

VLADIMIR SYKORA, VLASTIMIL HEROUT, & others

of II, a 50% yield. I gave the 3 peaks of its pure, b_p 95-105°, n_D²⁰ 1.4537, and [α]_D²⁰ 1.021, 1.1628; the infrared spectrum of I is given. LIV. The structure of lactarazulene and lactaravoline. Prantšek Šolm, Vojt. Benešová, and Vlastimil Herout. *Ibid.* 1876-81. A new structure for lactarazulene (from *Lactarius deliciosus*) (I), C₁₁H₁₆, was confirmed as 7-isopropenyl-1,4-dimethylazulene by partial hydrogenation, which transformed I to guaiazulene (II). *Lactaravoline* (III) also belongs to the guaiaculene (IV) type. Oxidation of I showed the presence of methylene double bond. Hydrogenation of I in EtOH over Pd on C, deactivated with quinoline vapors, gave II, trinitrobenzene compd., m. 151°. III, m. 57.6-8° (from petr. ether-CCl₄) which showed the presence of 1 CH₃ group, gave, by hydrogenation over PtO₂ in AcOH, IV, C₁₁H₁₆, d₄ 0.8310, n_D²⁰ 1.4311, and ac. aic., C₁₁H₁₆O, b_p 180-5° (bath temp.). Partial hydrogenation over deactivated Pd gave dihydrofactorsoline, b_p 130-5° (bath temp.). Infrared spectra of I and IV are given. LVI. Paper chromatography of azulenes. Otto Knessl and Alice Vlastiborová. *Ibid.* 48, 212-16 (1954). The analysis of trialkylazulenes is based on different R_f values obtained by paper chromatography with petr. ether as stationary and 35-70% H₂PO₄ as mobile phases. The R_f values with 35, 45, 50, 55, 60, 65, and 70% H₂PO₄, resp., are listed for *S*-guaiazulene (0.0, 0.03, 0.30, 0.43, 0.58, 0.87, 1.0), *ret*-azulene (0.0, 0.02, 0.13, 0.23, 0.47, 0.85, 1.0), *chama*azulene (0.03, 0.23, 0.47, 0.85, 0.79, 0.90, 1.0), and values for 50 and 55% H₂PO₄, resp., are given for *Se*-guaiazulene (0.56, 0.89), *isoguaiazulene* (0.50, 0.72), and *lactarazulene* (0.02, 0.05). The chromatograms were developed with H₂O or dry NH₃. LVII. Identity of lindazulene with chamaazulene. F. Šolm, V. Herout, and K. Tolsted. *Ibid.* 281-3; *Collection Czechoslov. Chem. Commun.* 19, 186-8 (1954) (in English). Identity of lindazulene (C₁₄, 91°, 48, 7716g) with chamaazulene (1,4-dimethyl-7-ethylazulene) was proved by mixed m.ps. of the trinitrobenzene compds. and by comparison of visible and ultraviolet spectra. The partial synthesis of lindazulene (*Pharm. Bull. Japan* 1, 241 (1953)) is, at the same time, proof of the correct structure of chamaazulene as proposed by Šolm. *et al.* (see 5th preceding abstr.). M. Hudlický.

SYKORA, V.

Chemical Abstr.
Vol. 48
Apr. 10, 1954
Analytical Chemistry

Identification of 2,4-dinitrophenylhydrazones of carbonyl compounds by paper chromatography. V. Sykora and Z. Procházka (Czech Acad. Sci., Prague, Czechoslovakia, Lity 47, 1974-5, 193).—To identify carbonyl compounds, the 2,4-dinitrophenylhydrazones are subjected to paper chromatography with petroleum as the stationary phase and 80% EtOH or 65% EtOH as the mobile phase. The R_f values for the 2,4-dinitrophenylhydrazones of the carbonyl compounds in EtOH and EtOH are given: CH_2O 0.6, 0.84; AcH 0.66, —; Me_2C 0.42, —; iso-PrCHO 0.32, —; MeEtCO 0.31, 0.70; cyclohexanone 0.29, 0.67; cyclohexanone, 0.23; 3,2-dimethylcyclohexanone, 0.15; —; carvone, 0.13, 0.49 resp. M. Hudlický.

SYKORA, V.

SYKORA, V.; HEROUT, V.; FLIVA, J.; SORM, F.

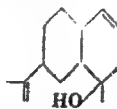
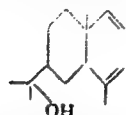
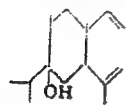
Terpenes. Part 50. Contribution to the constitution of elemol [in English with summary in Russian]. Sbor. Chekh. khim. rab. 19 no.1:124-134 F '54.
(MLRA 7:6)

1. Department of Natural Products, Institute of Organic Chemistry,
Czechoslovak Academy of Science, Prague. (Elemol)

CZECH

Vojtěšek, LV. Synthesis of elemane (1-methyl-1-ethyl-2,4-diallopropylcyclohexane). Vladimír Šekora, JIH 3
Ceruz, Vlastimil Herout, and František Šorm (Czech
Acad. Sci., Prague). Collection Czechoslov. Chem. Com-
muns. 19, 593-6 (1954) (in English).—See C.A. 49, 1855i.
E. J. C.

Terpenes. LV. Synthesis of elemene (1-methyl-1-ethyl-2,4-diisopropyl cyclohexane). Vladimír Šekora, Jiří Černý, Vlastimil Herout, and František Šolín (Csl. akad. věd, Prague, Czech.). *Chem. Listy* 48, 74 (1954); cf. preceding abstr. Synthetic 1-methyl-1-ethyl-2,4-diisopropylcyclohexane (I) is identical with elemene, a reduction product of elemol. However, 1,5-diisopropyl-2-methyl-2-ethylcyclohexanol (II) is not identical with tetrahydroelemol. One of the three formulas is suggested for elemol.



To a suspension of dry MeONa (prepd. from 23 g. Na) in 200 ml. C_6H_6 was added 75 g. HCO_2Et in 200 ml. C_6H_6 , and to the ice-cooled mixt. was added a soln. of 51.5 g. carvomenthone (b_p 94–4.5°, n_D^{20} 1.4543) in 300 ml. C_6H_6 . After 48 hrs. at room temp. under N atm., the mixt. was decompd. with H_2O , the C_6H_6 layer repeatedly extd. with 7% NaOH, the alk. ext. was extd. with Et_2O , then acidified with HCl (1:1) to pH 6, and extd. again with Et_2O to give 47 g. (83%) 2-methyl-5-isopropyl-6-formylcyclohexanone (formylcarvomenthone) (III), b_p 122–2.5°. Etherification of III

(47 g.) with 38 g. iso-BuOH yielded 49 g. (80%) 2-methyl-5-isopropyl-6-(isobutoxymethylene)cyclohexanone (IV), b_p 112–16°. To ethylate IV, KNH_2 prepd. from 16 g. K in 160 ml. liq. NH_3 with 0.1 g. $Fe(NO_3)_3$ was added to 500 ml. boiling Et_2O , the NH_3 was driven off under N atm., 44.7 g. IV in 200 ml. Et_2O was added during 2 hrs. after 1.5 hrs. boiling, in the course of 2 hrs., 80 g. EtI in 150 ml. Et_2O was added, and the mixt. refluxed 12 hrs., treated with H_2O , the aq. layer extd. with Et_2O , the ext. washed with 5% KOH, H_2O , dried, the Et_2O evapd., and the residue mixed with 250 ml. M methanolic $FeCl_3$. Treating the Fe complex with 400 ml. HCl (1:1), extg. the mixt. with Et_2O , washing the ext. with dil. HCl and H_2O , extg. the ether soln. repeatedly with 5% KOH, and steam distg. the alk. soln. yielded 17.5 g. (51.2%) 2-methyl-2-ethyl-5-isopropylcyclohexanone (V), pure, b_p 113–3.5° (15.5 g.); semicarbazone, m. 111.5–12.5° (from aq. MeOH). Adding 1.82 g. V to a soln. of iso-PrLi (prepd. from 0.7 g. Li and 10 ml. iso-PrCN), and heating the mixt. 1.5 hrs. gave 2.1 g. 1,5-diisopropyl-3-methyl-2-ethylcyclohexanol (VI), b_p 141–5°. Dehydration of 1.5 g. VI by heating 40 min. on the steam bath with fivefold excess of 80% HCO_2H , chromatography, and hydrogenation of the petr. ether fraction (0.9 g., b_p 112–13°) over PtO_2 gave 1-methyl-1-ethyl-2,4-diisopropylcyclohexane (VII), d_m 0.8480, n_D^{20} 1.4638. Infrared spectra of VII and of elemene obtained by total reduction of elemol are identical.

M. Hudlický

✓ Rate of carbon disulfide evaporation from aqueous and oil solutions. Bohumil Souček and Vladimír Škora (Ústav hyg. práce, Prague). Pracovní Lékařství 7, 222-4 (1955).
 Evapn. of CS₂ from aq. solns. at 37° showed a half-time of 2.31 hrs., compared with 15.14 hrs. when evapp. from oil solns. This supports the assumption that the slow elimination of CS₂ from the organism is caused mainly by the slow gradual transfer of CS₂ from the fatty tissues to the blood, whereas the transfer from blood to the alveolar air and breath is much faster.
 L. J. Uhlíček

CH

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AP PM

Constitution of acorone. V. ~~Wilson~~, V. ~~McGowan~~, J. ~~Chemistry~~

Constant	Variable	Designation	Comments
1056	23	44	Acrode



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by an absorption band at 1714 cm.⁻¹ This indicated that the C atom common to the 6- and 8-membered rings is

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rearrangement

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CIA-RDP86-00513R001654230001-9"

References: LXVI. The structure of p-cyanobenzene
Sikora, V. Herout, and P. Sorm (Czech. Acad. Sci.)

SYKORA, V.

Determining the absolute configuration of organic substances by means of optical rotations.

p. 400 (Chemie, Vol. 9, no. 3, June 1957, Praha, Czechoslovakia)

Monthly Index of East European Accessions (EEAI) IC. Vol. 7, no. 2,
February 1958

CZECHOSLOVAKIA / Organic Chemistry. Natural Substances and
Their Synthetic Analogues.

G-3

Abs Jour : RZhKhim., No 10, 1958, No 32585

Author : Vladimir Sykora, Miroslav Romanuk

Inst : Not given

Title : Terpenes. LXXVIII. Lactone Rule of Hudson-Klyne and Its
Application to Chemistry of Terpenes.

Orig Pub : Chem. listy, 1957, 51, No 2, 326-329; Sb. chekhosl. khim.
rabot, 1957, 22, No 6, 1909-1913

Abstract : The rule of Hudson-Klyne (see Hudson G.S., J. Amer.
Chem. Soc., 1910, 32, 338; RZhKhim., 1955, 28774) was applied
to the determination of the configuration of lactones based
on their optical mol. rotation. Easily accessible diols pro-
duced from terpene lactones by reduction with LiAlH_4 , cor-
responding oxides and hydrocarbons with the same framework
as the initial lactones are suggested as substances to com-
pare with. It was found that the configuration of santanol-
ide-5, 12 a (MD +63°, melting point 150 to 151°),

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Dr. J. D. D. D.

Distr: 4E3d

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Terpenes LXXXII Constitution of acorone. Yamamoto
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 1904 Yamamoto Yamamoto Yamamoto Yamamoto Yamamoto Yamamoto
 $C_{15}H_{24}O_2$ isolated from sweet-flag oil (II) is shown to be *l*-
 isopropyl-4,7-dimethylpiperid-2-one-2,6-dione (II). *l*-iso-

isopropyl-4,7-dimethylpiperid-2-one-2,6-dione (II) is shown to be *l*-
 isopropyl-4,7-dimethylpiperid-2-one-2,6-dione (II). *l*-iso-

to 100 ml. MeOH, stirring 10 min., allowing the mixt. to stand 10 min., decanting the liquid, and repeating the operation twice with 100 ml. MeOH. The residue is dried in a vacuum oven and then distilled, giving with b_p 120-8°, n_D^{20} 1.4612, d_4^{20} 0.9120, n_D^{25} 1.4582, d_4^{25} 0.9090, n_D^{30} 1.4553, d_4^{30} 0.9060, n_D^{35} 1.4524, d_4^{35} 0.9030, n_D^{40} 1.4495, d_4^{40} 0.9000, n_D^{45} 1.4466, d_4^{45} 0.8965, n_D^{50} 1.4437, d_4^{50} 0.8930, n_D^{55} 1.4408, d_4^{55} 0.8895, n_D^{60} 1.4379, d_4^{60} 0.8860, n_D^{65} 1.4350, d_4^{65} 0.8825, n_D^{70} 1.4321, d_4^{70} 0.8790, n_D^{75} 1.4292, d_4^{75} 0.8755, n_D^{80} 1.4263, d_4^{80} 0.8720, n_D^{85} 1.4234, d_4^{85} 0.8685, n_D^{90} 1.4205, d_4^{90} 0.8650, n_D^{95} 1.4176, d_4^{95} 0.8615, n_D^{100} 1.4147, d_4^{100} 0.8580, n_D^{105} 1.4118, d_4^{105} 0.8545, n_D^{110} 1.4089, d_4^{110} 0.8510, n_D^{115} 1.4060, d_4^{115} 0.8475, n_D^{120} 1.4031, d_4^{120} 0.8440, n_D^{125} 1.4002, d_4^{125} 0.8405, n_D^{130} 1.3973, d_4^{130} 0.8370, n_D^{135} 1.3944, d_4^{135} 0.8335, n_D^{140} 1.3915, d_4^{140} 0.8300, n_D^{145} 1.3886, d_4^{145} 0.8265, n_D^{150} 1.3857, d_4^{150} 0.8230, n_D^{155} 1.3828, d_4^{155} 0.8195, n_D^{160} 1.3799, d_4^{160} 0.8160, n_D^{165} 1.3770, d_4^{165} 0.8125, n_D^{170} 1.3741, d_4^{170} 0.8090, n_D^{175} 1.3712, d_4^{175} 0.8055, n_D^{180} 1.3683, d_4^{180} 0.8020, n_D^{185} 1.3654, d_4^{185} 0.7985, n_D^{190} 1.3625, d_4^{190} 0.7950, n_D^{195} 1.3596, d_4^{195} 0.7915, n_D^{200} 1.3567, d_4^{200} 0.7880, n_D^{205} 1.3538, d_4^{205} 0.7845, n_D^{210} 1.3509, d_4^{210} 0.7810, n_D^{215} 1.3480, d_4^{215} 0.7775, n_D^{220} 1.3451, d_4^{220} 0.7740, n_D^{225} 1.3422, d_4^{225} 0.7705, n_D^{230} 1.3393, d_4^{230} 0.7670, n_D^{235} 1.3364, d_4^{235} 0.7635, n_D^{240} 1.3335, d_4^{240} 0.7600, n_D^{245} 1.3306, d_4^{245} 0.7565, n_D^{250} 1.3277, d_4^{250} 0.7530, n_D^{255} 1.3248, d_4^{255} 0.7495, n_D^{260} 1.3219, d_4^{260} 0.7460, n_D^{265} 1.3190, d_4^{265} 0.7425, n_D^{270} 1.3161, d_4^{270} 0.7390, n_D^{275} 1.3132, d_4^{275} 0.7355, n_D^{280} 1.3103, d_4^{280} 0.7320, n_D^{285} 1.3074, d_4^{285} 0.7285, n_D^{290} 1.3045, d_4^{290} 0.7250, n_D^{295} 1.3016, d_4^{295} 0.7215, n_D^{300} 1.2987, d_4^{300} 0.7180, n_D^{305} 1.2958, d_4^{305} 0.7145, n_D^{310} 1.2929, d_4^{310} 0.7110, n_D^{315} 1.2900, d_4^{315} 0.7075, n_D^{320} 1.2871, d_4^{320} 0.7040, n_D^{325} 1.2842, d_4^{325} 0.7005, n_D^{330} 1.2813, d_4^{330} 0.6970, n_D^{335} 1.2784, d_4^{335} 0.6935, n_D^{340} 1.2755, d_4^{340} 0.6900, n_D^{345} 1.2726, d_4^{345} 0.6865, n_D^{350} 1.2697, d_4^{350} 0.6830, n_D^{355} 1.2668, d_4^{355} 0.6795, n_D^{360} 1.2639, d_4^{360} 0.6760, n_D^{365} 1.2610, d_4^{365} 0.6725, n_D^{370} 1.2581, d_4^{370} 0.6690, n_D^{375} 1.2552, d_4^{375} 0.6655, n_D^{380} 1.2523, d_4^{380} 0.6620, n_D^{385} 1.2494, d_4^{385} 0.6585, n_D^{390} 1.2465, d_4^{390} 0.6550, n_D^{395} 1.2436, d_4^{395} 0.6515, n_D^{400} 1.2407, d_4^{400} 0.6480, n_D^{405} 1.2378, d_4^{405} 0.6445, n_D^{410} 1.2349, d_4^{410} 0.6410, n_D^{415} 1.2320, d_4^{415} 0.6375, n_D^{420} 1.2291, d_4^{420} 0.6340, n_D^{425} 1.2262, d_4^{425} 0.6305, n_D^{430} 1.2233, d_4^{430} 0.6270, n_D^{435} 1.2204, d_4^{435} 0.6235, n_D^{440} 1.2175, d_4^{440} 0.6200, n_D^{445} 1.2146, d_4^{445} 0.6165, n_D^{450} 1.2117, d_4^{450} 0.6130, n_D^{455} 1.2088, d_4^{455} 0.6095, n_D^{460} 1.2059, d_4^{460} 0.6060, n_D^{465} 1.2030, d_4^{465} 0.6025, n_D^{470} 1.2001, d_4^{470} 0.5990, n_D^{475} 1.1972, d_4^{475} 0.5955, n_D^{480} 1.1943, d_4^{480} 0.5920, n_D^{485} 1.1914, d_4^{485} 0.5885, n_D^{490} 1.1885, d_4^{490} 0.5850, n_D^{495} 1.1856, d_4^{495} 0.5815, n_D^{500} 1.1827, d_4^{500} 0.5780, n_D^{505} 1.1798, d_4^{505} 0.5745, n_D^{510} 1.1769, d_4^{510} 0.5710, n_D^{515} 1.1740, d_4^{515} 0.5675, n_D^{520} 1.1711, d_4^{520} 0.5640, n_D^{525} 1.1682, d_4^{525} 0.5605, n_D^{530} 1.1653, d_4^{530} 0.5570, n_D^{535} 1.1624, d_4^{535}

Preparation of 4-methyl-4-isopropyl-1-cyclohexanone

over Pd on SrCO_3 and fractionation yielded 4.3 g. ketone $\text{C}_{12}\text{H}_{20}\text{O}$ (IX), b_p 73-8° (semicarbazone), m. 152-4° (70% EtOH), and 2.1 g. of ketone $\text{C}_{12}\text{H}_{20}\text{O}$ (X), b_p 97-102° (semicarbazone), m. 172° (20% EtOH). Reduction of IX and X with LiAlH_4 gave alcohols I, m. 141-5°, and II, m. 131-3°, which on dehydrogenation with S at 160-220° gave 4-methyl-4-isopropyl-1-cyclohexanone (XI), b_p 80-85°, d₄ 0.8585, n_D 1.4823, and 4-methyl-4-isopropyl-1-cyclohexanone (XII), b_p 80-85°, d₄ 0.8523, n_D 1.4823. Similar treatment of isocaproic acid with LiAlH_4 and S at 160-220° gave isocaproic acid, b_p 110-118°, dehydrogenated with S at 160-220° to 1,1-dimethyl-4-isopropyl-1-cyclohexanone, m. 59-61°, p₁₀ 83-7°. Adding 2.3 g. 4-methylcyclohexanone in petr. ether to a soln. of iso-BuLi, prep'd. from 1.0 g. Li and .8 ml. iso-BuCl, refluxing the mixt. 1 hr., and decomp. with ice gave 2.85 g. 4-methyl-4-isopropyl-1-cyclohexanone (XIII), b_p 90-101°. Heating 2.62 g. XIII with 15 ml. 85% HCO_2H 1 hr. at 100° and chromatography gave 2.05 g. of an oil, b_p 64-9°, which on dehydrogenation with S at 200-210° in a sealed tube and chromatography afforded XII, b_p 80-85°, d₄ 0.8526, n_D 1.4833. The infrared spectra of XI and XII are given. LXXXIII. Constitution of laserpitine. Miroslav Holub, Vlastimil Herout, and Frantiek Šorm. *Ibid.* 1713-24; cf. C.A. 49, 12401d; 48, 12707f.—Reduction of laserpitine (I) with LiAlH_4 gave dihydrolaserol (II) which, treated with 66% HI , hydrogenated over 5% Pd on SrCO_3 , and dehydrogenated with S at 160-220°, gave 1,1-dimethyl-4-isopropyl-1-cyclohexanone, m. 60° (petr. ether); p₁₀ 83, m. 62° (EtOH); styphnate, m. 124°. I treated with 5% COH in MeOH 1 hr. at room temp. gave 10% isotetrol isomer ($\text{C}_{12}\text{H}_{20}\text{O}$ (III), m. 100° AcOEt), and a small amt. of isomeric angelic ester, $\text{C}_{12}\text{H}_{20}\text{O}_2$ (III, m. 148°. Oxidation of I with H_2O_2 gave HCO_2H . III treated with CaCO_3 in ether and pyridine and the mixt. refluxed with 1% HCl 3 min. gave mono-O-carbethoxylaserol $\text{C}_{12}\text{H}_{20}\text{O}_2$, m. 144° (Me₂CO). Oxidation of IV

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with CrO_3 in pyridine 24 hrs. at 30° gave the mono- α -carbethoxy- α -diketone, $\text{C}_{11}\text{H}_{16}\text{O}_7$, m. $93-4^\circ$ (from Et_2O -petr. ether). III with CrO_3 in pyridine 24 hrs. at room temp. yielded a diketone, *laserone* (V), $\text{C}_{10}\text{H}_{14}\text{O}_4$, m. $180-1^\circ$ (AcOEt). I in pyridine with SOCl_2 gave an unsatd. hydroxyoxodiester $\text{C}_{11}\text{H}_{16}\text{O}_6$ (VI), m. 110° , hydrogenated over PtO_2 to a satd. hydroxyoxo diester, $\text{C}_{11}\text{H}_{18}\text{O}_6$ (VII), b.p. $151-65^\circ$. Reduction of VI with LiAlH_4 in Et_2O gave an unsatd. triol, $\text{C}_{11}\text{H}_{18}\text{O}_5$ (VIII), m. 177° (AcOEt); that of VII gave a satd. triol $\text{C}_{11}\text{H}_{20}\text{O}_5$, m. $185-7^\circ$ (AcOEt), obtained also by hydrogenation of VIII over PtO_2 . Tetrahydroclassipitine (IX) with SOCl_2 in pyridine gave an unsatd. hydroxyoxo diester, $\text{C}_{11}\text{H}_{16}\text{O}_6$ (X), b.p. $137-42^\circ$, reduced with LiAlH_4 to VIII. Heating I with SOCl_2 and pyridine 10 min. at 80° yielded an unsatd. oxo diester $\text{C}_{11}\text{H}_{14}\text{O}_5$ (XI), b.p. $183-5^\circ$, hydrogenated over PtO_2 to a completely satd. oxo diester, $\text{C}_{11}\text{H}_{18}\text{O}_5$ (XII), b.p. $147-51^\circ$. Reduction of XI with LiAlH_4 gave an unsatd. triol, $\text{C}_{11}\text{H}_{18}\text{O}_5$, m. $171-2^\circ$ (AcOEt), hydrogenated over PtO_2 to a satd. triol, $\text{C}_{11}\text{H}_{20}\text{O}_5$ (XIII), m. 102° (AcOEt). Its stereoisomer (XIV), was prepd. by reduction of XII with LiAlH_4 , m. $212-13^\circ$ (AcOEt). Heating IX with SOCl_2 in pyridine 10 min. at 80° gave an unsatd. oxo diester, $\text{C}_{11}\text{H}_{16}\text{O}_5$ (XV), m. 75° (aq. EtOH), reduced with LiAlH_4 to XIII. XIII with CrO_3 in AcOH at 5° yielded a lactone carboxylic acid $\text{C}_{11}\text{H}_{16}\text{O}_6$ (XVI), m. $123-4^\circ$ (petr. ether); *Me ester*, m. $79-80^\circ$. XIII with CrO_3 in AcOH at 20° and esterification with CH_3N , gave an oxo dicarboxylic di-Me ester, $\text{C}_{11}\text{H}_{18}\text{O}_8$ (XVII). From the oxidation of IX with CrO_3 in AcOH was obtained a small amt. of a mixed ester, $\text{C}_{11}\text{H}_{18}\text{O}_7$, m. $139-40^\circ$ (from Et_2O), of III with angelic acid and AcOH. Infrared spectra of V, VI, XI, X, and XV are given.

M. Hudis

Country : CZECHOSLOVAKIA G
 Category : Organic Chemistry. Natural Substances and
 Their Synthetic Analogs
 Abs. Jour : Ref Zhur - Khim., No 5, 1959, No. 15499
 Author : Sykora, V.; Herout, V.; Pliva, J.; Sorm, F.
 Institut. : -
 Title : Terpenes. LXXXII. Structure of Acoron
 Orig Pub. : Collect. czechosl. chem. commun., 1958, 23,
 No 6, 1072-1082
 Abstract : No abstract.
 See Ref Zhur-Khim, 1958, 64585.

Card: 1/1

G - 78

SYKORA, V.

COUNTRY : Czechoslovakia
CATEGORY :

G-3

ABS. JOUR. : RZKhim., No. 16 1959, No.

57216

AUTHOR :
INST. :
TITLE :

ORIG. PUB. :

ABSTRACT : of IV followed by oxidation with dil HNO₃ to D(+)-isopropylsuccinic acid (V). I does not isomerize when refluxed for 45 min with 10% NaOH in alcohol. When (-)-cadinanedihydrochloride is heated with CH₃COONa in CH₃COOH followed by chromatography on alkaline Al₂O₃ followed by fractionation in a column with 70 theoretical plates packed with Diksone [sic], IV is obtained, bp 124°/9 mm, n_D²⁰ 1.5059, d₄²⁰ 0.9239. 9.5 gms IV are added over 2 hrs to

CARD: 2/6

158

COUNTRY	:	Czechoslovakia	8-3
CATEGORY	:		
ABS. JOUR.	:	RZKhim., No. 16 1959, No.	57216
AUTHOR	:		
INST.	:		
TITLE	:		
ORIG. PUB.	:		
ABSTRACT	:	<p>yields of V are obtained by the ozonation of 7.8 gms IV in 80 ml CH_3COOH and the decomposition of the ozonides at 100° with a mixture of 45 ml water and 2.2 ml 30% H_2O_2. The residue after the evaporation of the solution is oxidized (1 hr, $110-120^\circ$) with 50% HNO_3 and V_2O_5; after the usual treatment, 2.03 gms of the anhydride of V are obtained which on heating with water give V (yield 18%); the latter is purified by paper chromatography. The reaction dispersion</p>	

CARD: 5/6

COUNTRY : Czechoslovakia G-3
CATEGORY :
ABS. JOUR. : RZKhim., No. 16 1959, No. 57215
AUTHOR :
INST. :
TITLE :
ORIG. PUB. :
ABSTRACT : which on chromatography on Al_2O_3 (4% water) yields 1,1,5-trimethyl-3-isopropyl-3-indanol, bp 125-128° (bath temperature)/3 mm. 700 mg of the latter product are hydrogenated over Pt (from PtO_2) in glacial CH_3COOH ; following chromatography on Al_2O_3 and percolation on SiO_2 , I is obtained, bp 112-120°/17 mm, n_D^{20} 1.4694, d_4^{20} 0.8644. Application of an analogous procedure to iso- C_6H_5Li (from 1.4 gm Li and 12 ml iso- C_6H_5Cl) and 1.75 gm of 1,5-dimethyl-3-indanone

CARD: 2/6

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CZECH/8-52-11-13/30

AUTHORS: Sýkora, V., Herout, V., Reiser, A. and Šorm, F.
TITLE: On Terpenes (O terpenech) XCVI. Steric Configuration of
Acorone and its Stereoisomers (XCVI. Sterická stavba
akoronu a jeho stereoisomerů)
PERIODICAL: Chemické Listy, 1958, Vol 52, Nr 11, pp 2102 - 2109
(Czechoslovakia)
ABSTRACT: The connection between acorone, iso acorone, neoacorone
and the probable basic form of their molecules has been
determined on the basis of optical rotation difference,
dispersion rotation curves, dipole moments and the thermo-
dynamic stability of the above named diketones and their
derivatives. Evidence was given in previous reports
(Refs 1,2) that acorone possesses structure I.
Structure I represents 16 membered stereoisomeric
substances. If we consider that the compounds differ
only in the configuration of the asymmetric centres
neighbouring on the carbonyl groups (C₍₄₎ and C₍₇₎),
four stereoisomers are possible. Three of these are
known and have already been described and their I.R.
spectra are given in this paper together with their

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4

CZECH/8-52-11-13/30

On Terpenes XCVI. Steric Configuration of Acorone and Its Stereoisomers

There are 3 figures, 6 tables and 12 references, 3 of which are Czech, 8 English and 1 French

ASSOCIATION: Oddělení přírodních látek, Chemický ústav,
Československá akademie věd, Praha
(Division of Natural Products, Institute of Chemistry,
Czechoslovakian Ac.Sc., Prague)

SUBMITTED: April 30, 1958

Card 3/3

008/60/000/04/013/019
E142/E435

60th Birthday of Dr Václav Hovorka, Professor, Engineer

their capacity for forming salts, the structure of the salts and their use in analytical chemistry. In conjunction with Z.Holzbecher and S.L.Diviš, Professor Hovorka also carried out detailed investigations in micro-analysis. At present he is devoting much of his time to the study of iso-structural isometallic chelates. Professor Hovorka has also translated many scientific publications, especially from Russian and English, and has published a "Russian-Czech Chemical and Technical Dictionary". A list of titles of his original works, books and translations is given in an appendix listing 69 papers, 2 books, 4 Czech translations of Russian books and Czech translation of an English book.

Card 2/2

SZKORA, V; DUBSKI, F. [Dubsky, E]

Selective ion exchangers on the basis of resorcyaldehyde. Part I :
Resins from resorcyclideanthranilic acid. Coll Cz Chem 27 no.2:350-
354 F '62.

1. Kafedra analiticheskoykhimii, Khimiko-tekhnologicheski institut,
Praga.

CZECHOSLOVAKIA

SYKORA, V; DUBSKY, F.

Institute of Analytic Chemistry of the Technical Higher
School of Chemistry, Prague (for both)

Prague, Collection of Czechoslovak Chemical Communications,
Vol 8, 1963, pp 2149-2157

"Selective Ion Exchange on the Base of Resorcyaldehyde
II. Dynamic Appraisal and Analytic Use of Resin
of Resorcytidenanthranic Acid."

KREPINSKY, J.; SYKORA, V. [deceased]; ZVONKOVA, E.; HEROUT, V.

On terpenes. Pt.172. Coll Cz Chem 30 no.2:553-558 F '65.

1. Institute of Organic Chemistry and Biochemistry of the Czechoslovak Academy of Sciences, Prague. Submitted December 29, 1963. 2. Present address: Moskovskiy institut tonkoy khimicheskoy tekhnologii M.V.Lomonosova, Moscow (for Zvorkova).

SYKORA, Vlasia

"Pneumatization of the bony nasal septum of man", p. 119 (Yugoslavia. Vol. 1, 1951, Zagreb)

SO: Monthly List of East European Vol. 2, No 9
Russian Accessions, /Library of Congress, September 1953, Uncl.

SYKORA, VLASTA

PODVINEC, Srecko; SYKORA, Vlasta

Pathophysiological mechanism of the corrosive lesions in the
esophagus. Radovi Med. fak. Vol.2:209-212 1953.

1. Otorinolaringoloska klinika Medicinskog fakulteta u Zagrebu
(Predstojnik: akademik prof. dr. B.Gusic). (Primljeno 29.I.1953)
(ESOPHAGUS, stenosis

*corrosive lesions, pathophysiol.)

SYKORA, Vlasta

Author's therapy of chronic postocorrosive stenoses of the esophagus in children, Radovi Med. fak. Vol.2:231-235 1953.

1. Otorinolaringoloska klinika Medicinskog fakulteta u Zagrebu
(Predstojnik akademik prof. dr. B.Gusic). (Priljeno 29.I.1953)
(ESOPHAGUS, stenosis
*caustic, in child., ther.)

MEDKOVA, L.; RUMLER, A.; SYKOROVA, D.

Relation of squint to disorders of occlusion and phonation.
Cesk. oftal. 20 no.1:52-56 Ja '64.

1. Očni oddeleni polikliniky OUNZ, (ved. lékař MUDr. L. Medkova) ;
Foniatricke poradna krajske nemocnice s poliklinikou v
Ostrave (vedouci: MUDr. A. Rumler) a Detske zubni oddeleni
polikliniky OUNZ v Karvine (vedouci: MUDr. D. Sykorova).

SYKOROVA, D.; STRZONDALOVA, H.; KETKA, J.

Experiences in the analysis of causes of low dental caries incidence in children from children's homes in the district of Karvinna. Cesk. stomat. 65 no.3:220-227 My'65.

1. Detske zubni stredisko nemocnice s poliklinikou v Karvine;
Oddeleni hygieny vyzivy Obvodniho ustavu narodniho zdravi v Karvine.

28604 Z/047/61/000/011/004/OC4
D007/D102

1.1800

18.1200

AUTHOR: Sýkorová, Věra, Engineer

TITLE: Surface treatment helps save nonferrous metals

PERIODICAL: Technická práce, no. 11, 1961, 958-961

TEXT: This is a presentation of some recent achievements of the Státní výzkumný ústav ochrany materiálu (State Research Institute for Material Protection) in its research and developmental work on surface-treatment methods by which nonferrous metals can be saved. An improved diffusion-chromizing method (inchromizing), protected by a Czechoslovak patent, uses Cr powder which is transformed into gaseous iodide at temperatures above 1,000°C so as to react with and diffuse into the Fe surface. Disintegration products of this process condensate on the cool equipment parts and spontaneously regenerate to the original chromizing mixture. This method is only applicable to low-carbon steels containing up to 0.08% C, or steels stabilized with Ti (type 12020), Nb, or similar carbide-forming elements. This method is used by the Jihomoravská armaturka Hodonín (South-Moravian Fittings Plant in

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D007/D102

Surface treatment helps ...

Hodonín) for impregnation of waterline fittings and saves 17027.6 stainless steel and 40 - 65% of production costs. A large line for diffusion-chromizing of screws, nuts, etc., is to be installed at the Šroubárny - Libčice (Screw Plant in Libčice). Diffusion sulfurizing processes (including the patented Czechoslovak gaseous sulfonitriding process) are still seldom used in the CSSR. Upon order, diffusion sulfurizing is made by the n. p. Spojené ocelárny - Kladno (United Steelworks, National Enterprise, in Kladno), and is successfully used by the ČZM in Strakonice and Prague and by the Cs. závody naftových motorů (Czechoslovak Diesel-Engine Works) in Prague for impregnation of piston rings, and by the TOS Concern for impregnation of worm gears, lead screws, bushings, etc. High-quality, nearly pore-free coatings are obtained by currentless Ni plating. Coating with acid-resistant enamels, mostly used for chemical and foodhandling equipment, is in the CSSR applied only by the n. p. Buzuluk (Buzuluk National Enterprise) in Komárov and the Chotebořské kovodělné závody, n. p. (Chotěboř Metal-Processing Works, National Enterprise) in Chotěboř. The latter plant has an enameling furnace measuring 4 x 4 x 9 m. Several Czechoslovak research institutes have been investigating the possibilities of saving nonferrous metals in the production

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Surface treatment helps ...

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D007/D102

of friction bearings. The State Research Institute for Metal Protection developed two methods by which the bushings are galvanically lined with bronze which has the same properties as the metallurgically prepared CuSn6 alloy. Galvanical coating with an additional SnPb lining increases the bearing capacity from 150 to 400 kg/cm². The metallizing process for producing linings of friction surfaces is very popular in the USSR. Spraying-on of metal layers not only saves nonferrous metals but the properties of these linings are also superior to those of classic bearing metals; their porosity (up to 15% of the layer volume) helps to maintain the lubricant film. A certain disadvantage is the impaired thermal conductivity which is due to the oxide content of the lining. For linings of friction surfaces applied with flame-spray guns, the State Research Institute for Material Protection recommends the following pseudo-alloys: (1) Al + PbSb₃ in a volume ratio of 1 : 1 has very good anti-friction properties, especially at high circumferential speeds. At hydrodynamic friction, this pseudo-alloy behaves like the OSN 42 3751 composition. It withstands semi-dry and dry friction at loads up to 50 kg and circumferential speeds of 6 - 11 m/sec, and gives a reliable performance even at uncontrolled lubrication at loads up to 200 kg, temperatures up to

X

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27604
Z/047/61/000/011/004/004
D007/D102

Surface treatment helps ...

120°C and circumferential speeds of 2 - 6 m/sec, (2) Al + PbSb₃ in a volume ratio of 3 : 1 withstands loads up to 200 kg/cm² at circumferential speeds of 2 - 7 m/sec at controlled lubrication, and loads up to 300 kg/cm² at a circumferential speed of 2 m/sec even with substandard lubrication with solid lubricants. (3) Fe 0.1C + Al in a volume ratio of 1 : 1 withstands high loads (up to 500 kg/cm²) at small circumferential speeds (up to 2 m/sec) even with substandard lubrication with solid lubricants. At circumferential speeds of 6 - 10 m/sec, it withstands specific pressures up to 100 kg/cm² at temperatures up to 300°C. This pseudo-alloy is especially suitable for lining the bearings of forming machines. The Smeralovy závody (Smeral Works) in Brno are projecting the construction of a large shop for metal-spraying of friction linings. All these methods have been worked out in all details, complete with technological instructions and general information on the nature and properties of the surface obtained by each particular process. There are 1 figure and 1 table.

ASSOCIATION: Státní výzkumný ústav ochrany materiálu, Praha (State Research Institute for Material Protection, Prague)

Card 4/4

21286

Z/032/61/011/008/005/009
E073/E535

11800

AUTHORS: Sýkorová, V., Dvořák, J., Průšek, J. and Vychytil, P.

TITLE: Continuous anodic oxidation of aluminium conductors

PERIODICAL: Strojírenství, 1961, Vol.11, No.8, p.634

TEXT: A technology of continuous oxidation of aluminium conductors was developed in which a superimposed current is applied at a current density of about 150 A/dm^2 . Within 15 sec an oxide layer about 8μ thick forms which fully satisfies electrical requirements. The use of the extremely high current densities was made possible by feeding in the current through a liquid and using a special cooling system. The quality of the oxide layer is monitored by an automatic unit. A three-pole optical and sound signalling system gives information to the attending personnel on the state of the process. The oxide layers can withstand temperatures up to 300°C so that they form an insulation of the highest thermal class. In contrast to organic insulating materials, these layers also have a high resistance to high energy radiation in atomic reactors, accelerators etc. The breakdown

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Continuous anodic oxidation ...

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voltage of an 8 μ layer is about 200 V r.m.s. and can be doubled by impregnation. The thus insulated conductors can be wound by conventional methods with a minimum curvature of eight times the wire diameter. These aluminium conductors enable increasing the thermal class of the windings and reducing the total weight of electrical machinery; pilot plant manufacture of these conductors has commenced.

1960, Prague: SVÚOM 45/60

[Abstractor's Note: Complete translation.]

Card 2/2

JELINEK, Tomas, inz.; SYKOROVA, Viera, inz.

Work of thematic voluntary groups in the solution of research and development tasks, and utilization of the result of their work in anticorrosion protection. Tech praca 15 no. 6: 412-415 Je '63.

1. Dom techniky, Bratislava (for Jelinek)
2. Statni vyzkumny ustav ochrany materialu, Praha (for Sykorova)

SYKOROVA, Vera, inz.

Present difficulties and further development of anticorrosion protection. Podn org 18 no.9:411-415 S '64.

1. G.V. Akimov State Research Institute of Material Protection, Prague.

JELINEK, Tomasz, inz.; SYKOROWA, Wiera, inz.

Works of Czechoslovak groups collectively working on subjects
in the field of protection against corrosion. Przegl techn
84 no.28:5 14 JI '63.

L 45587-66 EWT(m)/T/EWP(t)/ETI IJP(c) JD/JG

ACC NR: AP6028714

SOURCE CODE: UR/0185/66/011/008/0917/0918

AUTHOR: Bohdanovych, A. S.; Ivzhenko, M. A.; Koval'ov, V. K.; Sykors'kyi, Yu. A.;
Yurachkivs'kyi, P. O.; Bryhynets', V. P.

ORG: Kiev Polytechnical Institute (Kyiv's'kyi politekhnichnyy instytut)

TITLE: Dislocations and V-centers in KCl crystals

SOURCE: Ukrayins'kyi fizychnyy zhurnal, v. 11, no. 8, 1966, 917-918

TOPIC TAGS: potassium chloride, crystal lattice dislocation, x-ray coloring, color center, crystal absorption spectrum

ABSTRACT: This article endeavors to explain the role of dislocations in creating V-centers in KCl crystals subjected to x-rays at room temperatures. Four crystals of "pure" KCl grown from a melt by the Kyropoulos method (two each with dislocation density of $5 \cdot 10^6$ and $5 \cdot 10^4 \text{ cm}^{-2}$) were colored by x-rays at room temperature and their absorption spectra were then photospectrometrically measured. Comparison of graphs plotted from the results of "hard" and "soft" coloring showed that (1), other coloring conditions being equal, the crystals with more dislocations chiefly formed V_3 -centers ($218 \text{ m}\mu$), while those with fewer dislocations gave only V_2 -centers ($230 \text{ m}\mu$), and (2) the spectral makeup of V-absorption does not

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L 45587-66

ACC NR: AP6028714

depend on "hardness" of crystal coloration, not only refuting the view that "hard" and "soft" x-rays create V_3 - and V_2 -centers, respectively, but also suggesting that V_3 -centers are defects formed either in or near the dislocations themselves, while V_2 -centers form in the lattice far from them and require lattice vacancies. Further studies showed that the preceding assumption is true and that the V_2 - to V_3 -center ratio is stipulated by dislocation density and the number of "frozen" thermal vacancies in the crystal. In conclusion the authors thank Prof. M. P. Kalabukhov for interest in the work and useful discussions. Orig. art. has: 2 figures. [26]

SUB CODE: 20/ SUBM DATE: 05Mar66/ ORIG REF: 002/ OTH REF: 007 / ATD PRESS: 5082

Card

2/2

pla

EYBL, V.; SYKOVA, J.; KOCHER, Z.

EDTA and cobalt poisoning. Cesk. fysiол. 8 no.4:331-332 July 59.

1. Farmakologicky ustav lek. fak. KU, Plzen.
(EDATHAMIL, pharmacol.) (COBALT, toxicol.)

SYKOVA, I. V.

M. N. Tilitchenko and I. V. Sykova

"Chemical Structure of Cyclohexanone-Formaldehyde Resins." Journal of Applied Chemistry 25, 64-69, January 1952, Tchernishavskiy University, Laboratory for Organic Chemistry.

ABSTRACT AVAILABLE

D-50054

L

USSR / Meadow Cultivation.

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24759

Author : Sykoyan, A. P.
Inst : Armenian Scientific-Research Institute of
Animal Husbandry and Veterinary Science
Title : Action of Certain Forms of Potassium
Fertilizers on Natural Meadows of the
Meadow-and-Steppe Zone in the Armenian SSR

Orig Pub : Tr. Arm. n.-i. in-ta zhivotnovodstva i
veterinariii, 1957, 2, 245-255

Abstract : In the high-mountainous Lori plain on
many-grassed meadows mixed with narrow-
leaved feather-grass and on cereal meadows
mixed with sedges, K in the form of K₆₀P₆₀
was introduced at the rate of 45 kg/ha. On
the many-grassed meadow, the hay-harvest .

Card 1/2

133-8-24/28

An increase of productivity and an improvement in the operation of continuous heating furnaces. (Cont.)

pressure. Moreover, the design of burners (Figs.1 and 2) was altered, namely screw shaped inserts (Fig.4) were introduced into the tubes of the burners, which considerably improved gas-air mixing. The distribution of heat along the top of the furnace before and after the redesign of burners is shown in Fig.3. The leakage of cold air through the delivery door was decreased by the use of a flame curtain (22 water cooled tubes along the width of the furnace - Fig.2). By the above measures the temperature of the heated metal was increased by 20-30 C. The output of a single furnace increased to: for hot charge - 80 ton/hr, for cold charge - 50 ton/hr. There are 4 figures.

ASSOCIATION: Zaporozh'ye Steel Works (Zavod "Zaporozhstal").

AVAILABLE: Library of Congress

Card 2/2

COUNTRY	:	Poland	H-17
CATEGORY	:		
ABST. JOUR.	:	RZKhim., No. 5 1960, No.	19070
AUTHOR	:	Kalinowski, K. and Sykulska, Z.	
INST.	:	Not given	
TITLE	:	The Coulometric Microdetermination of Thiamine Hydrochloride (Aneurine)	
ORIG. PUB.	:	Acta Polon Pharmac, 16, No 2, 111-114 (1959)	
ABSTRACT	:	The microdetermination of vitamin B ₁ has been carried out in alkaline medium using iodine obtained by electrolytic means. The sharp [deadstop] endpoint method with two platinum electrodes was used in the determination. From authors' summary	
CARD:	1/1	294	

SYKULSKA, Zofia; GORYCKA, Maria

Stability of injectable solutions of morphine hydrochloride sealed under inert gas. Acta Pol. pharm. 22 no.2:133-139 '65.

1. Z Katedry Farmacji Stosowanej Akademii Medycznej w Lodzi (Kierownik: prof. dr. F. Modrzejewski).

Country : POLAND
Category: Organic Chemistry. Natural Compounds and Their
Synthetic Analogues

G

Abs Jour: RZhKhim., No 17, 1959, No. 61058

Author : Sylulski, J.

Inst : -

Title : Study of Eupatorium Cannabinum. Part V. Study
of Euparin and Derivation of Accompanying
Compounds

Orig Pub: Acta polon. pharmac., 1958, 15, No 5, 361-370

Abstract: The content of euparin (2-isopropenyl-5-acetyl-
-6-oxycumaron (I) in the roots of Eupatorium Cann-
abinum, growing in Poland, varies from 0.09 to
0.34%, with the maximum content occurring at the

Card : 1/5